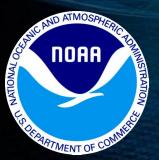
## National Severe Weather Workshop



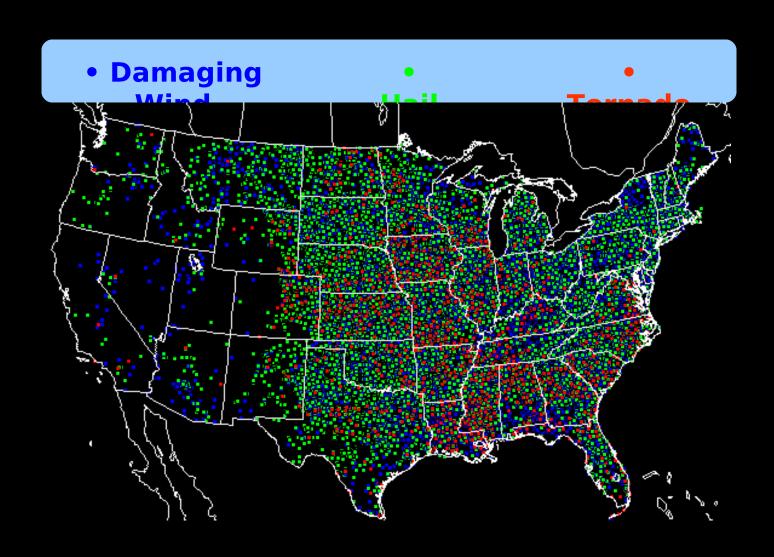
# Improving Services for Communities at Risk

**Lynn Maximuk** 

Director, National Weather Service, Central Region

Norman, OK March 5, 2009

# 2008 Severe Weather Reports



### **Severe Weather in 2008**

# February 5-6 Super Tuesday Outbreak

- 87 tornadoes
- 57 fatalities
- 17 minute average lead time
- Outlook 6 days in advance

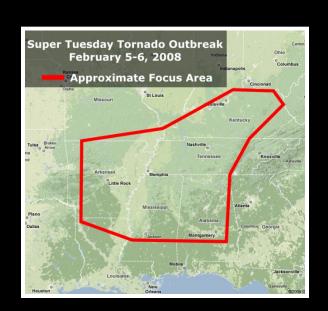


## **Super Tuesday Outbreak**

# Service Assessment Team Key Findings and Recommendations

#### **Key Findings:**

- 63% of victims in mobile homes
- 60% did not have access to safe shelter
- Most fatalities occurred at night



#### **Recommendations:**

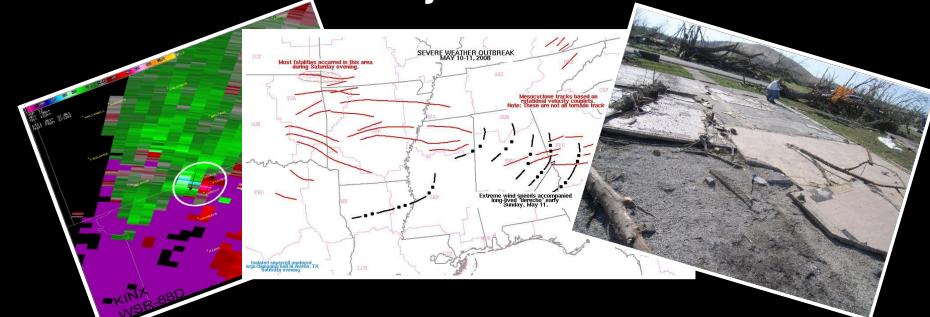
- Improve wording and call-to-action statements
- Increase emphasis on social science

### **Severe Weather in 2008**

May 10-11 Mother's Day Outbreak

- More than 50 tornadoes
- 24 fatalities
- 20 min. average lead time

Outlook issued 3-4 days in advance



## Mother's Day Outbreak

# Service Assessment Team Key Findings and Recommendations

#### **Key Findings:**

- Multiple Sources of information
- Social networks important
- Tornado Warnings and Severe Weather Statements provided confirmation of a tornado and the dangerous nature of the tornado



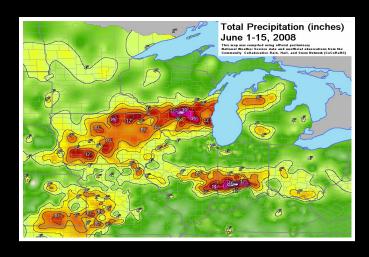
#### **Recommendations:**

- Increase emphasis on decision support services
- Develop public awareness campaigns

### **Severe Weather in 2008**

### Spring Midwest Flooding





- Flooding exceeded 500-year levels
- Warning lead times nearly twice national goal
- Seasonal outlook highlighted major flooding potential

## Spring Midwest Flooding

# Service Assessment Team Key Findings and Recommendations

#### **Key Findings:**

- Forecast uncertainty info. very useful
- Use of flood terminology sometimes confusing

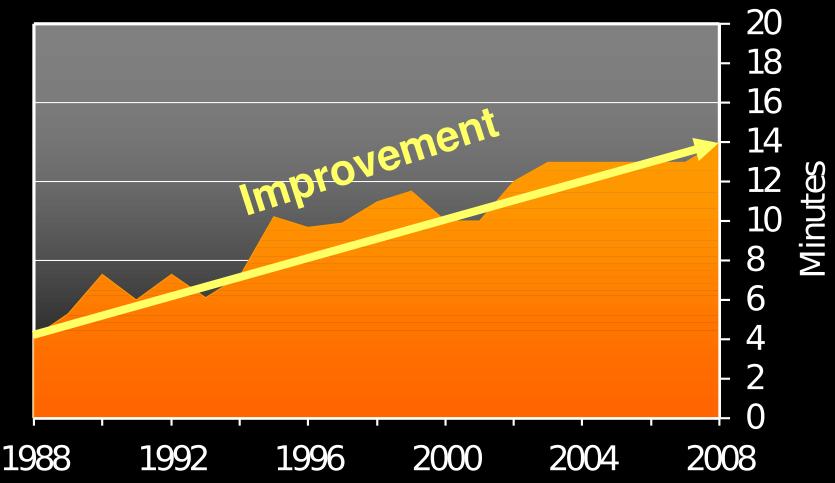
#### **Recommendations:**

- Share more uncertainty info. with other agencies
- Accelerate implementation of flood inundation mapping
- Continue to assess ways to integrate social science into NWS operations



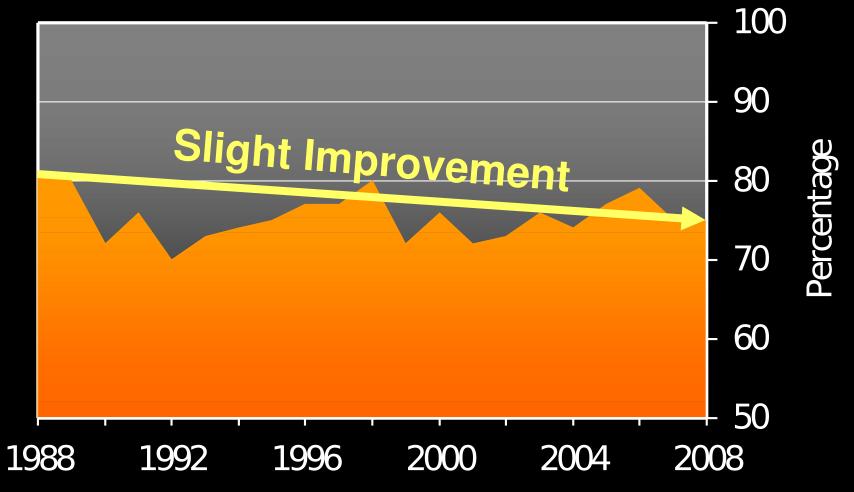
## Improving Tornado Warnings

**Greater Lead Times** 



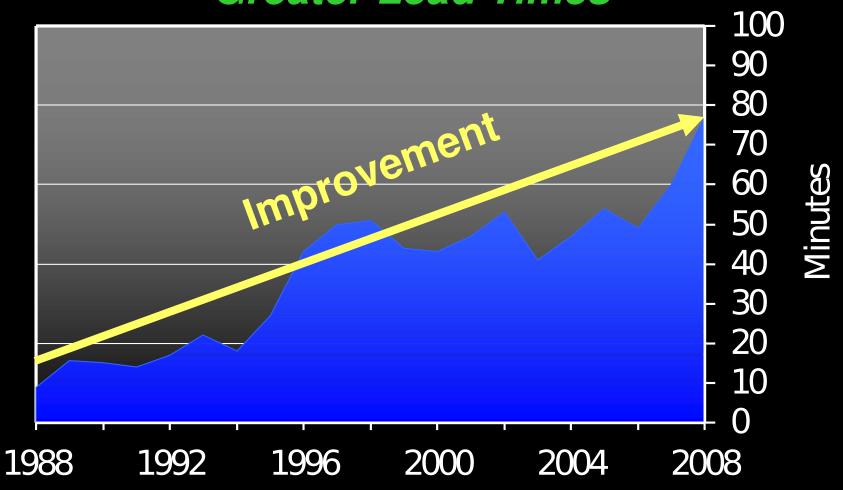
## **Improving Tornado Warnings**

Lower False Alarm Rates



# Improving Flash Flood Warnings

Greater Lead Times



#### Understanding Local Needs





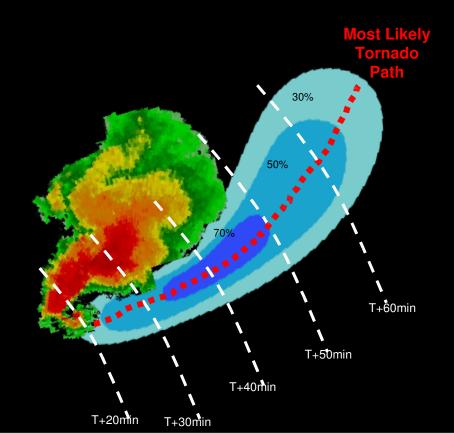
# Providing Customer-Centric Information Decision Support Services





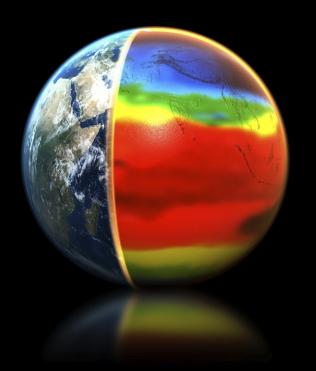


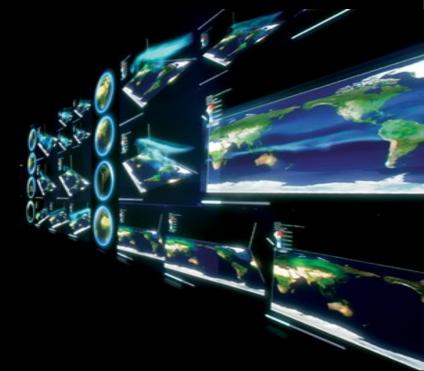
# Issuing Warnings Based on Forecasts in all Service Areas



Implementing Next Generation Science and Technology

Integrating & Improving Earth
System Models





#### Measuring Our Success



